

# Dynein IC1, cytosolic (D-16): sc-32192

## BACKGROUND

Dyneins are multisubunit, high molecular weight ATPases that interact with microtubules to generate force by converting the chemical energy of ATP into the mechanical energy of movement. Cytoplasmic or axonemal Dynein heavy, intermediate, light and light-intermediate chains are all components of minus end-directed motors; the complex transports cellular cargos towards the central region of the cell. Axonemal Dynein motors contain one to three non-identical heavy chains and cause a sliding of microtubules in the axonemes of cilia and flagella in a mechanism necessary for cilia to beat and propel the cell. Cytoplasmic Dynein is an approximately 12 subunit complex of two heavy chains, two intermediate chains to anchor Dynein to its cargo, four smaller intermediate chains and several light chains. It performs functions necessary for cell survival such as organelle transport and centrosome assembly. The carboxy terminus of Dynein is important for microtubule-dependent motility and is highly conserved, while the amino terminal regions are more variable. Several proteins regulate Dynein activity, including dynactin, LIS1 and NudEL(NudE-like).

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: DNCL1 (human) mapping to 7q21.3; Dncic1 (mouse) mapping to 6 A1.

## SOURCE

Dynein IC1, cytosolic (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Dynein IC1, cytosolic of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32192 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Dynein IC1, cytosolic (D-16) is recommended for detection of Dynein IC1, cytosolic of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Dynein IC1, cytosolic (D-16) is also recommended for detection of Dynein IC1, cytosolic in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Dynein IC1, cytosolic siRNA (h): sc-44673, Dynein IC1, cytosolic siRNA (m): sc-44674, Dynein IC1, cytosolic shRNA Plasmid (h): sc-44673-SH, Dynein IC1, cytosolic shRNA Plasmid (m): sc-44674-SH, Dynein IC1, cytosolic shRNA (h) Lentiviral Particles: sc-44673-V and Dynein IC1, cytosolic shRNA (m) Lentiviral Particles: sc-44674-V.

Molecular Weight of Dynein IC1: 74 kDa.

Positive Controls: Mouse brain extract: sc-2253 or rat brain extract: sc-2392.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **Dynein IC1/2, cytosolic (74-1): sc-13524** or **Dynein IC1, cytosolic (G-1): sc-515227**, our highly recommended monoclonal alternatives to Dynein IC1, cytosolic (D-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Dynein IC1/2, cytosolic (74-1): sc-13524**.